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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,714	03/02/2005	Kazushi Sato	255825US6PCT	4449

22850 7590 08/19/2009

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EXAMINER	
PARK, EDWARD	

ART UNIT	PAPER NUMBER
2624	

NOTIFICATION DATE	DELIVERY MODE
08/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/501,714	SATO ET AL.	
	Examiner	Art Unit	
	EDWARD PARK	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 87-96* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-10,87-89,91-94 and 96* is/are rejected.

7)☒ Claim(s) *5,90 and 95* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to applicant's amendment and remarks received on 5/11/09. Claims 1-10, 87-96 are currently pending.

Response to Arguments

2. Applicant's arguments filed on 5/11/09, in regards to claims 1, 9, 10, have been fully considered but they are not persuasive. Applicant argues that the Sato reference does not disclose the newly amended limitation where a second filter performs motion prediction and/or compensation processing ... with respect to the interframe bi-directional predictive encoding image (see pg. 15, second paragraph – pg. 16, fourth paragraph). This argument is not considered persuasive since a second filter is taught within Sato, paragraph [0042], [0043] where motion-compensating sections (frame prediction) 109 performs interpolation in vertical direction. First, as shown in FIG. 9A, the section 109 reads pixel values ga that have a phase difference between fields, from the video memory 110, in accordance with the vector value contained in the input compressed image data (bit stream). Then, as shown in FIG. 9B, a twofold interpolation filter generates a 1/2-precision pixel gb in each field. As shown in FIG. 9C, the motion-compensating sections (frame prediction) 109 performs inter-field linear interpolation, thereby generating a 1/4-precision pixel; coefficients are prepared and applied, so that the two-step interpolation, which consists in using a twofold interpolation filter and performing linear

interpolation, may be accomplished in a single step in both the horizontal direction and the vertical direction. Examiner notes that second filtering is interpreted as the interpolation in the vertical direction. Applicant further argues that the filtering can not meet the limitations since it is done at one time (see pg. 16, third paragraph). This argument is not considered persuasive since the reference states within paragraph [0043] that the two step process may be accomplished within one step, which implies that it is a two-step process that could be reduced to one step. Furthermore, the one step may or may not be executed simultaneously in time. Examiner notes that two processes done in one step does not imply that the processes are done simultaneously; it may be that the two processes are executed when the algorithm or method executes that particular step.

Regarding claim 8, applicant argues that the claim is allowable due to the dependency from claim 4 (see pg. 16, last paragraph). This argument is not considered persuasive since claim 4 stands rejected and the arguments and rejection can be seen within this action.

Specification

3. In response to applicant's amendment of the title, the previous title objection is withdrawn.

Claim Objections

4. In response to applicant's amendment of claims 1-10, the previous claim objection is withdrawn.

Claim Rejections - 35 USC § 101

5. In response to applicant's amendment of claims 9, 10, the previous claim rejections are withdrawn.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1, 2, 3, 4, 6, 7, 9, 10, 87, 88, 89, 91, 92, 93, 94, 96** are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al (US 2001/0010706 A1).

Regarding **claim 1**, Sato discloses an image information encoding apparatus adapted for encoding an input image signal at least including intraframe encoding image, interframe forward predictive encoding image and interframe bidirectional predictive encoding image by orthogonal transform and motion prediction and/or compensation processing to generate image compressed information, the image information encoding apparatus comprising:

A motion prediction and/or compensation unit configured to perform motion prediction and/or compensation processing based on different interpolation methods with respect to the interframe

forward predictive encoding image and the interframe bidirectional predictive encoding image (see paragraph [0062]; convert first compressed image data to second compressed image data more compressed than the first compressed image data. The first compressed image data is interlaced-scan data that has been compressed by orthogonal transform and motion compensation. The second compressed data is serial-scan data. The method comprises the steps of: decoding the first compressed image data by using only lower mth-order orthogonal transform coefficients included in nth-order orthogonal transform coefficients (where m<n), in both a vertical direction and a horizontal direction in the first compressed image data; converting interlaced-scan data output from the image data decoding means to serial-scan data; and encoding the serial-scan data, thereby generating the second compressed image data),

wherein the motion prediction and/or compensation unit includes a first filter and performs motion prediction and/or compensation processing by using the first filter with respect to the interframe forward predictive encoding image (see paragraph [0040], [0041]; section 108 (field prediction) and the section 109 (frame prediction), a twofold interpolation filter, such as a half-band filter, generates a 1/2-precision pixel and a 1/4-precision pixel is generated from the 1/2-precision pixel by means of linear interpolation, thus achieving interpolation in horizontal direction. In this case, a half-band filter may be used to output, as a predicted value, a pixel that has the same phase as the pixel read from the frame memory 110; half-band filter may be used as the twofold interpolation filter and may output pixel values of the same phase as those read from video memory 110, which represent a predicted image) and includes a second filter and performs motion prediction and/or compensation processing by using the second filter, the second filter having number of taps relative to the first filter, with respect to the interframe bidirectional

predictive encoding image (see paragraph [0042], [0043]; motion-compensating sections (frame prediction) 109 performs interpolation in vertical direction. First, as shown in FIG. 9A, the section 109 reads pixel values ga that have a phase difference between fields, from the video memory 110, in accordance with the vector value contained in the input compressed image data (bit stream). Then, as shown in FIG. 9B, a twofold interpolation filter generates a 1/2-precision pixel gb in each field. As shown in FIG. 9C, the motion-compensating sections (frame prediction) 109 performs inter-field linear interpolation, thereby generating a 1/4-precision pixel; coefficients are prepared and applied, so that the two-step interpolation, which consists in using a twofold interpolation filter and performing linear interpolation, may be accomplished in a single step in both the horizontal direction and the vertical direction).

Regarding **claim 2**, Sato discloses selecting, as an interpolation method with respect to the interframe bidirectional predictive encoding image, a method in which operation quantity and the number of memory accesses are reduced to a greater degree as compared to the interframe forward predictive encoding image (see paragraph [0062]).

Regarding **claim 3**, Sato discloses having a same pixel accuracy of motion prediction and/or compensation processing for the interframe forward predictive encoding image and the interframe bidirectional predictive encoding image (see paragraph [0008]).

Regarding **claims 4, 7,** Sato discloses selecting motion prediction and/or compensation processing by different pixel accuracies for the interframe forward predictive encoding image and the interframe bidirectional predictive encoding image (see paragraph [0038], [0042]; compensation modes, a twofold interpolation filter, such as a half-band filter, generates a 1/2-precision pixel and a 1/4-precision pixel is generated from the 1/2-precision pixel by means of

linear interpolation, thus achieving interpolation in horizontal direction. In this process, a half-band filter may be used to output, as a predicted value, a pixel that has the same phase as the pixel read from a frame memory. If this is the case, it is unnecessary to repeat multiplication and addition as many times as the number of taps); and performing motion prediction and/or compensation processing of 1/4 pixel accuracy with respect to the interframe forward predictive encoding image, and to perform motion prediction and/or compensation processing of ½ pixel accuracy with respect to the interframe bidirectional predictive encoding image (see paragraph [0038], [0042]; generates a 1/2-precision pixel gb in each field. As shown in FIG. 9C, the motion-compensating sections (frame prediction) 109 performs inter-field linear interpolation, thereby generating a 1/4-precision pixel gc).

Regarding **claim 6**, Sato discloses performing motion prediction and/or compensation processing of 1/4 pixel accuracy by linear interpolation with respect to the interframe bidirectional predictive encoding image (see paragraph [0038], [0042]; generates a 1/2-precision pixel gb in each field. As shown in FIG. 9C, the motion-compensating sections (frame prediction) 109 performs inter-field linear interpolation, thereby generating a 1/4-precision pixel gc).

Regarding **claim 9**, Sato discloses an image information encoding method for encoding an input image signal at least including intraframe encoding image, interframe forward predictive encoding image and interframe bidirectional predictive encoding image by orthogonal transform and motion prediction and/or compensation processing to generate image compressed information, the image information encoding method including:

performing motion prediction and/or compensation processing, using an image information encoding apparatus, based on different interpolation methods with respect to the interframe forward predictive encoding image and the interframe bidirectional predictive encoding image (see paragraph [0062]; convert first compressed image data to second compressed image data more compressed than the first compressed image data. The first compressed image data is interlaced-scan data that has been compressed by orthogonal transform and motion compensation. The second compressed data is serial-scan data. The method comprises the steps of: decoding the first compressed image data by using only lower mth-order orthogonal transform coefficients included in nth-order orthogonal transform coefficients (where m<n), in both a vertical direction and a horizontal direction in the first compressed image data; converting interlaced-scan data output from the image data decoding means to serial-scan data; and encoding the serial-scan data, thereby generating the second compressed image data), wherein the performing motion prediction and/or compensation processing comprises performing motion prediction and/or compensation processing by using a first digital filter with respect to the interframe forward predictive encoding image (see paragraph [0040], [0041]; section 108 (field prediction) and the section 109 (frame prediction), a twofold interpolation filter, such as a half-band filter, generates a 1/2-precision pixel and a 1/4-precision pixel is generated from the 1/2-precision pixel by means of linear interpolation, thus achieving interpolation in horizontal direction. In this case, a half-band filter may be used to output, as a predicted value, a pixel that has the same phase as the pixel read from the frame memory 110; half-band filter may be used as the twofold interpolation filter and may output pixel values of the same phase as those read from video memory 110, which represent a predicted image), and

performing motion prediction and/or compensation processing by using a second digital filter having a fewer number of taps relative to the first filter with respect to the interframe bidirectional predictive encoding image (see paragraph [0042], [0043]; motion-compensating sections (frame prediction) 109 performs interpolation in vertical direction. First, as shown in FIG. 9A, the section 109 reads pixel values ga that have a phase difference between fields, from the video memory 110, in accordance with the vector value contained in the input compressed image data (bit stream). Then, as shown in FIG. 9B, a twofold interpolation filter generates a 1/2-precision pixel gb in each field. As shown in FIG. 9C, the motion-compensating sections (frame prediction) 109 performs inter-field linear interpolation, thereby generating a 1/4-precision pixel; coefficients are prepared and applied, so that the two-step interpolation, which consists in using a twofold interpolation filter and performing linear interpolation, may be accomplished in a single step in both the horizontal direction and the vertical direction).

Regarding **claim 10**, Sato discloses a computer-readable storage medium (see paragraph [0001], [0009], [0038]) having embedded therein instruction, which when executed by a processor, cause the processor to perform processing which encodes an input image signal at least including intraframe encoding image, interframe forward predictive encoding image and interframe bidirectional predictive encoding image by orthogonal transform and motion prediction and/or compensation processing to generate image compressed information, the processing including:

performing motion prediction and/or compensation processing based on different interpolation methods with respect to the interframe forward predictive encoding image and the interframe bidirectional predictive image (see paragraph [0062]; convert first compressed image data to

second compressed image data more compressed than the first compressed image data. The first compressed image data is interlaced-scan data that has been compressed by orthogonal transform and motion compensation. The second compressed data is serial-scan data. The method comprises the steps of: decoding the first compressed image data by using only lower mth-order orthogonal transform coefficients included in nth-order orthogonal transform coefficients (where m<n), in both a vertical direction and a horizontal direction in the first compressed image data; converting interlaced-scan data output from the image data decoding means to serial-scan data; and encoding the serial-scan data, thereby generating the second compressed image data), wherein the performing motion prediction and/or compensation processing comprises performing motion prediction and/or compensation processing by using a first filter with respect to the interframe forward predictive encoding image (see paragraph [0040], [0041]; section 108 (field prediction) and the section 109 (frame prediction), a twofold interpolation filter, such as a half-band filter, generates a 1/2-precision pixel and a 1/4-precision pixel is generated from the 1/2-precision pixel by means of linear interpolation, thus achieving interpolation in horizontal direction. In this case, a half-band filter may be used to output, as a predicted value, a pixel that has the same phase as the pixel read from the frame memory 110; half-band filter may be used as the twofold interpolation filter and may output pixel values of the same phase as those read from video memory 110, which represent a predicted image), and performing motion prediction and/or compensation processing by using a second filter having a fewer number of taps relative to the first filter with respect to the interframe bidirectional predictive encoding image (see paragraph [0042], [0043]; motion-compensating sections (frame prediction) 109 performs interpolation in vertical direction. First, as shown in FIG. 9A, the section 109 reads pixel values ga that have a

phase difference between fields, from the video memory 110, in accordance with the vector value contained in the input compressed image data (bit stream). Then, as shown in FIG. 9B, a twofold interpolation filter generates a 1/2-precision pixel gb in each field. As shown in FIG. 9C, the motion-compensating sections (frame prediction) 109 performs inter-field linear interpolation, thereby generating a 1/4-precision pixel; coefficients are prepared and applied, so that the two-step interpolation, which consists in using a twofold interpolation filter and performing linear interpolation, may be accomplished in a single step in both the horizontal direction and the vertical direction).

Regarding **claim 87**, Sato discloses selecting, as an interpolation method with respect to the interframe bi-directional predictive encoding image, a method in which operation quantity and a number of memory access are reduced to a greater degree as compared to the interframe forward predictive encoding image (see paragraph [0062]).

Regarding **claim 88**, Sato discloses having a same pixel accuracy of motion predication and/or compensation processing for the interframe forward predictive encoding image and the interframe bi-directional predictive encoding image (see paragraph [0008]).

Regarding **claim 89**, Sato discloses having different pixel accuracies of motion predication and/or compensation processing for the interframe forward predictive encoding image and the interframe bi-directional predictive encoding image (see paragraph [0038], [0042]; compensation modes, a twofold interpolation filter, such as a half-band filter, generates a 1/2-precision pixel and a 1/4-precision pixel is generated from the 1/2-precision pixel by means of linear interpolation, thus achieving interpolation in horizontal direction. In this process, a half-band filter may be used to output, as a predicted value, a pixel that has the same phase as the

pixel read from a frame memory. If this is the case, it is unnecessary to repeat multiplication and addition as many times as the number of taps).

Regarding **claim 91**, Sato discloses performing motion prediction and/or compensation processing of ¼ pixel accuracy by linear interpolation with respect to the interframe bi-direction predictive encoding image (see paragraph [0038], [0042]; generates a 1/2-precision pixel gb in each field. As shown in FIG. 9C, the motion-compensating sections (frame prediction) 109 performs inter-field linear interpolation, thereby generating a 1/4-precision pixel gc).

Regarding **claim 92**, Sato discloses selecting, as an interpolation method with respect to the interframe bi-directional predictive encoding image, a method in which operation quantity and a number of memory access are reduced to a greater degree as compared to the interframe forward predictive encoding image (see paragraph [0062]).

Regarding **claim 93**, Sato discloses having a same pixel accuracy of motion predication and/or compensation processing for the interframe forward predictive encoding image and the interframe bi-directional predictive encoding image (see paragraph [0008]).

Regarding **claim 94**, Sato discloses having different pixel accuracies of motion predication and/or compensation processing for the interframe forward predictive encoding image and the interframe bi-directional predictive encoding image (see paragraph [0038], [0042]; compensation modes, a twofold interpolation filter, such as a half-band filter, generates a 1/2-precision pixel and a 1/4-precision pixel is generated from the 1/2-precision pixel by means of linear interpolation, thus achieving interpolation in horizontal direction. In this process, a half-band filter may be used to output, as a predicted value, a pixel that has the same phase as the

pixel read from a frame memory. If this is the case, it is unnecessary to repeat multiplication and addition as many times as the number of taps).

Regarding **claim 96**, Sato discloses performing motion prediction and/or compensation processing of ¼ pixel accuracy by linear interpolation with respect to the interframe bi-directional predictive encoding image (see paragraph [0038], [0042]; generates a 1/2-precision pixel gb in each field. As shown in FIG. 9C, the motion-compensating sections (frame prediction) 109 performs inter-field linear interpolation, thereby generating a 1/4-precision pixel gc).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 2001/0010706 A1) and in view of Suzuki et al (US 6,590,902 B1).

Regarding **claim 8**, Sato discloses all elements as mentioned above in claim 4. Sato does not disclose embedding in a MotionResolution field at RTP layer within the image compressed information with respect to the interframe forward predictive encoding image and the interframe bidirectional predictive encoding image.

Suzuki, in the same field of endeavor, teaches embedding in a MotionResolution field at RTP layer within the image compressed information with respect to the interframe forward predictive encoding image and the interframe bidirectional predictive encoding image (see col. 3, lines 5-27, col. 4, lines 8-20; layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel, comprising means for converting data belonging to each of layers of an elementary stream (hereinafter refereed to as "ES") to packetized elementary stream (hereinafter referred to as "PES") data, and wherein the converting means converts the ES data so that only ES data belonging to the same layer is contained in a single PES packet. The apparatus further comprises means for packetizing the PES packet to a real time protocol (hereinafter referred to as "RTP") packet for each layer data, so that only the RTP packet data belonging to the same layer is contained in a single RTP packet which transmits the RTP packet).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sato reference to utilize embedding at RTP layer as suggested by Suzuki, to increase reliability and quality during congestion of a transmission network that leads to discarding of data important for video reproduction by utilizing I, P and B frame structures to positively discard the component data, starting with the least significant component (see col. 2, lines 29-45).

Allowable Subject Matter

10. Claims 5, 90, 95 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 5, none of the references of record alone or in combination suggest or fairly teach wherein the motion prediction and/or unit is configured to perform motion prediction and/or compensation of 1/4 pixel accuracy, and to perform, with respect to the interframe forward predictive encoding image, interpolation processing of ½ pixel accuracy by using filter coefficients having 6 taps expressed below {l,-5,20,20,-5,1)/32 to perform interpolation processing of 1/4 pixel accuracy by linear interpolation on the basis of generated pixels.

Regarding claim 90, none of the references of record alone or in combination suggest or fairly teach wherein the performing motion prediction and/or compensation processing includes performing motion prediction and/or compensation of 1/4 pixel accuracy, and performing, with respect to the interframe forward predictive encoding image, interpolation processing of 1/2 pixel accuracy by using filter coefficients having 6 taps expressed below {1,-5, 20, 20, -5, 1}/32 to perform interpolation processing of 1/4 pixel accuracy by linear interpolation on the basis of generated pixels.

Regarding claim 95, none of the references of record alone or in combination suggest or fairly teach wherein the performing motion prediction and/or compensation processing includes performing motion prediction and/or compensation of 1/4 pixel accuracy, and performing, with respect to the interframe forward predictive encoding image, interpolation processing of 1/2 pixel accuracy by using filter coefficients having 6 taps expressed below {1,-5, 20, 20, -5, 1}/32 to perform interpolation processing of 1/4 pixel accuracy by linear interpolation on the basis of generated pixels.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWARD PARK whose telephone number is (571)270-1576. The examiner can normally be reached on M-F 10:30 - 20:00, (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on (571) 272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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